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Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
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July 25, 2000

Mr. Joseph A. Legare
Assistant Manager for Environment
and Infrastructure

U.S. Department of Energy
Rocky Flats Field Office
10808 Highway 93, Unit A
Golden, CO 80403-8200

Re: Building 707 RLCR

Dear Mr. Legare:

We have received the Building 707 Reconnaissance Level Characterization Report for review and comment pursuant to provisions of RFCA. Although the document is dated May 19, 2000, the department did not receive its first copy until June 29, 2000. This document will require some revision. The major issue is in the typing of those buildings classified as type one within the report.

We appreciate the effort expended on building 707 characterization, as evidenced by the large body of analytical and survey results obtained during the characterization process. We agree that the surveys performed, far in excess of those performed for previous buildings, will be of great advantage in planning the decommissioning process and certainly speed progress as we near the latter phases of the 707 project. We encourage the continuation and even expansion of such reconnaissance level characterization efforts.

In our review of the report, we have concentrated on those buildings which the report has categorized as type 1, or "uncontaminated" buildings, which drop from the LRA attention during the decommissioning phase. Here we found significant irregularities in the characterization process and the "typing" of the structures. More specifically, it appears that characterization data does not support the KH conclusion of 'uncontaminated' or type 1 status in all instances. Additionally, characterization data for buildings determined to be type 1 does not meet PDS survey quality criteria as outlined in the Characterization Survey Protocols. Specifics of these irregularities are outlined in the attachment to this letter.

ADMIN RECCRD

B707-A-000017

Post-it Fax Note	7671	Date	7/25/00	# of pages	1
To	J. Legare	From	J. Norton		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #	303-966-2995	Fax #	303-695-3367		

① Mark
Jack
Comments?

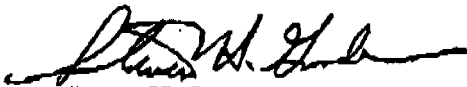
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We believe that some of the problems with the RLCR might have been avoided had KH provided us submissions and discussions of draft sections and conclusions.

Feel free to call our 707 project coordinator, Edd Kray, at (303) 966-2115, to arrange for discussions relating to correcting the reports deficiencies.

Sincerely,



Steven H. Gunderson
RFCA Project Coordinator



Edd Kray
776/777 Project Coordinator

cc: Tim Rehder, EPA
Dave Shelton, Kaiser-Hill
Steve Tarlton, CDPHE

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Attachment

The following critical deficiencies were identified within the Building 707 Reconnaissance Level Characterization Report

- 1.) p. 9 states that B711, B711A and B718 are classified as type 1 buildings (uncontaminated). Table 4-23, p.159 states: radiological contamination is "none" for buildings B711, B711A and B718.

Sec 4.5.1.3, p.156 states: "Radiological survey results indicate that radiological hazards are present. Survey results on the roof are above limits prescribed in DOE Order 5400.5..."

Appendix, volume 2, data for B718 contains survey results confirming the previous statement and contradicting the building typing conclusion. Average survey meter measurements for the building 718 roof section are 100.8 dpm/100 cm², exceeding the release limit of 100 dpm.

The typing for B718 appears to contradict the data.

- 2.) p 168 states that: for the 707 tanks: "no radiological hazards are present" and "all 38 total surface activity measurements on equipment with associated alpha and beta-gamma activity are below the contamination limits...."

p. 9 states that 20 tanks are type 1 and 1 is type 2.

This contradiction needs to be resolved and corrected within a revised report.

- 3.) The D&D Characterization protocols, p.14 of 44 state: "Because type 1 facilities should be free of contamination, RLC for type 1 facilities SHALL be designed and conducted to meet PDS (pre-demolition survey) requirements."

Contrary to this requirement, PDS standards are not in evidence for the buildings classified as type 1 within this RLCR. More specifically:

a) Minimum detectable activities for instrumentation is to be at or below 50% of the release standard. The release standard is 100 dpm/100cm² averaged over 1m².. MDAs for these surveys fall outside of this range, for example the MDA for the 718 exterior wall surveys were 94 and 100.3 dpm (above the release standard!) For the 707-S tanks one instrument had a MDA of 104.5 dpm.

b) Scanning results for coverage of large areas and identification of hot spots is an important part of the final survey process at RFETS. No scanning surveys appear to have been done within the RLC program in 707. The RLCR for the facilities

categorized as type 1 does not, therefore, meet the final survey (PDS) criteria in either MARSSIM or RFETS procedures.

- 4) Data for the 707 tanks shows each tank was classified as type 1 based on a single survey data point. We question the adequacy of this sampling frequency.
- 5) Various specific sections of the report in section 4, for example section 4.8.1, present the following similar text:

"The following measurements were required:

44 total surface activity measurements

The following measurements were collected:

38 total surface activity measurements

The radiological survey requirements for this survey area were met or exceeded."

How can the requirements be met or exceeded when the number of measurements is less than that specified as required?

- 6) Section 4 uses a common wording which causes concern on our part. Section 4.2.1, for example, states: "Three survey results.....indicate that a radiological hazard exists..... Later text states: A majority of the survey area can be considered non-contaminated." For what purpose is the area considered non contaminated? When contamination is discovered within a survey unit or area, this displays the potential for contamination to appear in any area within the unit. The unit should be considered potentially contaminated, not non-contaminated. Discovery of contamination leads to reclassification (upgrading) within the MARSSIM system.

A survey unit which contains contamination above the DCGL is to be considered a MARSSIM class 1 affected area. Final [PDS] surveys will need to be done based on the criteria for a contaminated area.